Project Brief: Collaborative Document Editing System

Overview

We aim to develop a system resembling Google Docs, leveraging our existing Laravel environment with user authentication. This system will enable users to create, edit, and save documents collaboratively. Additionally, users should be able to export their documents to PDF format.

Core Features

- **Document Creation and Editing**
  - Users can start a new document or edit existing ones.
  - Support for real-time editing and collaboration.
  - Autosave functionality to prevent data loss.
- **Text Formatting**
    - Basic formatting options including:
    - Font type and size selection.
    - Text styles: Bold, Italic, Underline.
    - Text alignment: Left, Center, Right, Justify.
  - Paragraph formatting with indentation options.
- **Lists and Bullet Points**
  - Bullet point lists: Regular bullets, hollow circles, squares, etc.
  - Numbered lists with various numbering styles (dots, squares, 1, 2, 3; i, ii, iii; A, B, C, etc.).
  - Ability to adjust list levels (indentation).
- **Checkboxes**
  - Users can insert checkboxes into the document.
  - Checkboxes should be interactive within the editing mode.
- **Images**
  - Import images by dragging them in
  - Easily delete images somehow
- **Create and edit tables**
  - Create/remove tables
  - Insert/remove rows and column
- **Copy/Pasting**
  - When copying content from elsewhere, keep formatting as much as possible, similar to copying something from a website and pasting it into Apple Notes - It stays formatted
  - Similar when copying from our new system and pasting elsewhere, include formatting, but maybe that's automatic?
- **Export Functionality**
  - Option to export documents to PDF format.
  - Ensure formatting is preserved in the export.

Additional Requirements

- **Responsive Design**
  - The interface should be user-friendly and adaptable to various screen sizes, ensuring accessibility across different devices.
- **Cross-Browser Compatibility**
  - Ensure compatibility with major browsers like Chrome, Firefox, Safari, and Edge.
- **Data Security and Privacy**
  - Implement robust security measures to protect user data and document confidentiality.
- **Collaboration Tools**
  - Invite other users, so sharing a document, managing other users rights, view-only, view-and-edit
- **Simplified User Interface**
  - Focus on a clean and intuitive design, avoiding overly complex or unnecessary features.
- **Documentation and Help**
  - Provide clear documentation for users.
  - Include tooltips and help sections within the application for guidance.

Technical Considerations

- The development should adhere to Laravel best practices.
- Use Vue.js or a similar framework for the front-end to ensure a dynamic and responsive user interface.
- Consider using WebSocket for real-time collaborative editing.
- Store documents in a structured format (like JSON) to facilitate easy manipulation and formatting.

Timeline and Milestones

- Define a clear timeline with specific milestones for phases like development, testing, and deployment.
- Regular updates and progress reviews are expected.

Deliverables

- A fully functional document editing system within the Laravel environment.
- Comprehensive documentation covering the system's functionality and codebase.
- A user manual or guide for end-users.